#### HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 1405 Biosolids

**SPONSOR(S):** Water Quality, Supply & Treatment Subcommittee, Tuck

TIED BILLS: IDEN./SIM. BILLS: CS/SB 880

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
Water Quality, Supply & Treatment     Subcommittee	17 Y, 0 N, As CS	Curtin	Curtin
Agriculture & Natural Resources Appropriations     Subcommittee	13 Y, 0 N	Byrd	Pigott
3) Infrastructure Strategies Committee		Curtin	Harrington

## **SUMMARY ANALYSIS**

The majority of Florida's domestic wastewater is controlled and treated by centralized treatment facilities regulated by the Department of Environmental Protection (DEP). When domestic wastewater is treated, a byproduct accumulates in the wastewater treatment plant and must be removed so that the plant may continue operating properly. The byproduct is treated to produce a nutrient-rich product known as biosolids.

In Florida, biosolids are classified as "Class AA," "Class A," or "Class B." Biosolids must be treated to substantially reduce pathogens, the attractiveness of the biosolid to rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents, and the amount of toxic metals in the biosolids. Class B biosolids receive the least amount of treatment. Class AA biosolids may be distributed and marketed like other commercial fertilizers with few further restrictions. In addition to being treated, biosolids are subject to regulatory requirements designed to protect human health and the environment.

The bill establishes a biosolids grant program within DEP and provides that, subject to the appropriation of funds by the Legislature, DEP may provide grants to counties and municipalities to support projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids. The bill encourages applicants to form public-private partnerships with private utilities and firms.

The bill requires DEP to administer the grant program so that, of the funds made available each year for the program, percentages of those funds are reserved for specific types of projects.

The bill requires DEP, in allocating grant funds, to prioritize projects by considering each project's economic and market feasibility, as well as the environmental benefit that a project may provide.

The bill prohibits DEP from authorizing land application site permits for Class B biosolids within the subwatershed or upstream subwatershed of certain impaired waterbodies unless the applicant can affirmatively demonstrate that particular nutrients in the biosolids will not increase nutrient loadings in the impaired subwatershed. The bill requires the demonstration to be based on achieving a net balance between nutrient imports relative to exports on the permitted application site and requires exports to include only nutrients removed from the subwatershed through products generated on the permitted application site and provides deadlines by which Class B biosolids permittees must meet the demonstration requirements.

The bill requires DEP, beginning November 1, 2023, and each November 1 thereafter, to publish maps designating the subwatersheds of certain impaired waterbodies.

The bill does not appear to have a fiscal impact on the state but may have an indeterminate fiscal on local governments.

### **FULL ANALYSIS**

#### I. SUBSTANTIVE ANALYSIS

#### A. EFFECT OF PROPOSED CHANGES:

# **Background**

Phosphorus and nitrogen are naturally present in water and are essential nutrients for the healthy growth of plant and animal life. The correct balance of both nutrients is necessary for a healthy ecosystem; however, excessive nitrogen and phosphorus can cause significant water quality problems.2

Phosphorus and nitrogen are derived from natural and human-made sources.<sup>3</sup> Human-made sources include sewage disposal systems (wastewater treatment facilities and septic systems), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.4 Excessive nutrient loads may result in harmful algal blooms, nuisance aquatic weeds, and the alteration of the natural community of plants and animals.5

# Impaired Waters

The federal Clean Water Act establishes the framework to protect and restore the Nation's waters.6 Each state must establish water quality standards for waters within their borders and then develop a list of impaired waters that do not meet the established water quality standards and a list of threatened waters that may not meet water quality standards in the following reporting cycle.<sup>7</sup>

In order to plan and prioritize projects to protect and restore water quality, the Department of Environmental Protection (DEP) has sorted Florida's water resources into 29 major watersheds and organized those watersheds into 5 basin groups.8 A watershed is an area of land that contributes to the flow of water into a body of water<sup>9</sup>; it "sheds" water into the receiving body of water. Flowing water carries organic debris and dissolved organic matter that provide food and shelter for aquatic life, but it also carries pollutants such as fertilizers and pesticides over the land and into the receiving body of water.10

Waterbodies or waterbody segments that fail to meet applicable water quality standards are "impaired." If DEP determines that any waters are impaired, the waterbody or segment must be placed on the verified list of impaired waters and a total maximum daily load (TMDL) must be calculated.<sup>12</sup> A waterbody or segment may be removed from the list at any time during the TMDL

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<sup>&</sup>lt;sup>1</sup> U.S. Environmental Protection Agency (EPA), The Issue (last updated Aug. 11, 2022), https://www.epa.gov/nutrientpollution/issue (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>2</sup> *Id*.

 $<sup>^3</sup>$  *Id*.

<sup>&</sup>lt;sup>4</sup> EPA, Nutrient Pollution, Sources and Solutions (last updated Aug. 11, 2022), https://www.epa.gov/nutrientpollution/sources-andsolutions (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>5</sup> EPA, *supra* note 1.

<sup>&</sup>lt;sup>6</sup> EPA, Overview of Identifying and Restoring Impaired Waters under Section 303(d) of the CWA (last updated Aug. 31, 2022), https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa (last visited Mar. 18, 2023); 7 Id.; 40 C.F.R. § 130.7 (Following the development of the list of impaired waters, states must develop a total maximum daily load (TMDL) for every pollutant/waterbody combination on the list. A TMDL is a scientific determination of the maximum amount of a given pollutant that can be absorbed by a waterbody and still meet water quality standards); Department of Environmental Protection (DEP), Total Maximum Daily Loads Program (last updated Dec. 6, 2022), https://floridadep.gov/dear/water-quality-evaluationtmdl/content/total-maximum-daily-loads-tmdl-program (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>8</sup> DEP, Assessment Lists, https://floridadep.gov/dear/watershed-assessment-section/content/assessment-lists (last visited Apr. 10, 2023).

<sup>&</sup>lt;sup>9</sup> S. 403.031(18), F.S.

<sup>&</sup>lt;sup>10</sup> S. Shukla, What is a Watershed?, University of Florida IFAS Extension Ask IFAS (Dec. 2019). https://edis.ifas.ufl.edu/publication/AE265 (last visited Mar. 17, 2023).

<sup>11</sup> R. 62-303.200(7), F.A.C. ("'Impaired water' shall mean a waterbody or waterbody segment that does not meet its applicable water quality standards as set forth in Chapters 62-302 and 62-4, F.A.C. . . . due in whole or in part to discharges of pollutants from point or nonpoint sources.")

<sup>&</sup>lt;sup>12</sup> DEP, supra note 8; DEP, Verified List Waterbody Ids (WBIDs), https://geodata.dep.state.fl.us/datasets/FDEP::verified-listwaterbody-ids-wbids/about (last visited Mar. 18, 2023); and s. 403.067(4), F.S.

process if it attains water quality standards.<sup>13</sup> If DEP determines that a waterbody is impaired, but further study is needed to determine the causative pollutants or other factors contributing to impairment before the waterbody is placed on the verified list, the waterbody or segment will be placed on the statewide comprehensive study list.<sup>14</sup>

# Wastewater Treatment and Biosolids

The majority of Florida's domestic wastewater is controlled and treated by centralized treatment facilities regulated by DEP. There are approximately 2,000 permitted domestic wastewater treatment facilities in Florida and those facilities have a total treatment capacity of over 2.7 billion gallons per day. When domestic wastewater is treated, a byproduct accumulates in the wastewater treatment plant and must be removed so that the plant may continue operating properly. The collected material is the solid, semisolid, or slurry residual material that is a byproduct of wastewater treatment processes. To

The byproduct is treated<sup>18</sup> to produce a nutrient-rich product known as biosolids, which may then be applied to agricultural land and reclamation sites<sup>19,20</sup> Recycling biosolids to soils benefits society and the environment for a number of reasons, including enhancing soil health, recycling nutrients, and putting to productive use residual solids from wastewater treatment, which is a vital public health service.<sup>21</sup> "When applied to land at the appropriate agronomic rate, biosolids provide a number of benefits including nutrient addition, improved soil structure, and water reuse."<sup>22</sup> In addition, land application of biosolids may have economic and waste management benefits because landfill space is not used for the disposal of biosolids.<sup>23</sup> However, biosolids are receivers of Per- and Polyfluoroalkyl Substances (PFAS).<sup>24</sup>

<sup>&</sup>lt;sup>13</sup> S. 403.067(5), F.S.; DEP, *Impaired Waters Listing Process* (last updated Jan. 11, 2023), <a href="https://floridadep.gov/dear/water-quality-assessment/content/impaired-waters-listing-process">https://floridadep.gov/dear/water-quality-assessment/content/impaired-waters-listing-process</a> (last visited Apr. 10, 2023).

<sup>&</sup>lt;sup>14</sup> R. 62-303.150(1), F.A.C.; DEP, *supra* note 8.

<sup>&</sup>lt;sup>15</sup> DEP, General Facts and Statistics about Wastewater in Florida (last updated Apr. 20, 2022) <a href="https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida">https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida</a> (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>16</sup> DEP, *Domestic Wastewater Biosolids* (last updated April, 20, 2022), <a href="https://floridadep.gov/water/domestic-wastewater-biosolids">https://floridadep.gov/water/domestic-wastewater-biosolids</a> (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>17</sup> *Id.*; see also Brittanica, Sludge Treatment and Disposal, <a href="https://www.britannica.com/technology/wastewater-treatment/Sludge-treatment-and-disposal">https://www.britannica.com/technology/wastewater-treatment/Sludge-treatment-and-disposal</a> (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>18</sup> "Treatment' means the process of altering the character or physical or chemical condition of waste to prevent pollution of water, air, or soil, to safeguard the public health, or enable the waste to be beneficially used. Treatment includes blending, dewatering, and any process that alters the quality or quantity of the material for the purpose of meeting the requirements of this chapter. Treatment does not include storage of biosolids." R. 62-640.200(49), F.A.C.

<sup>&</sup>lt;sup>19</sup> On reclamation sites "[b]iosolids have been used successfully to establish sustainable vegetation, reduce the bioavailability of toxic substances often found in soils, control soil erosion, and regenerate soil layers at sites that have damaged soils. Soil regeneration is very important for reclaiming sites with little or no topsoil." EPA, *Basic Information About Biosolids – Reclamation Sites*, <a href="https://www.epa.gov/biosolids/basic-information-about-biosolids">https://www.epa.gov/biosolids/basic-information-about-biosolids</a> (last visited Apr. 10, 2023).

<sup>&</sup>lt;sup>20</sup> EPA, *Basic Information About Biosolids* (last updated Jan. 18, 2023), <a href="https://www.epa.gov/biosolids/basic-information-about-biosolids">https://www.epa.gov/biosolids/basic-information-about-biosolids</a> (last visited Apr. 10, 2023); DEP, <a href="https://www.epa.gov/biosolids/basic-information-about-biosolids">https://www.epa.gov/biosolids</a> (last visited Apr. 10, 2023); DEP, <a href="https://www.epa.gov/biosolids/basic-information-about-biosolids">https://www.epa.gov/biosolids</a> (last visited Apr. 10, 2023); DEP, <a href="https://www.epa.gov/biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-about-biosolids/basic-information-biosolids/basic-information-biosolids/basic-information-about-biosolids/basic-info

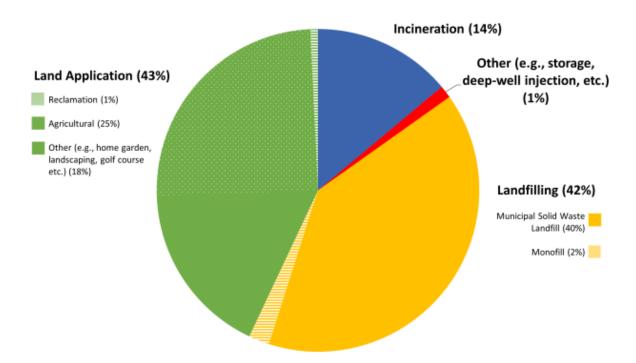
<sup>&</sup>lt;sup>21</sup> Water Environment Federation, *PFAS in Municipal Biosolids* (Apr. 2021 webcast), <a href="https://learn.wef.org/course/view.php?id=17&pageid=197">https://learn.wef.org/course/view.php?id=17&pageid=197</a>.

<sup>&</sup>lt;sup>22</sup> EPA, *supra* note 20.

 $<sup>^{23}</sup>$  *Id*.

<sup>&</sup>lt;sup>24</sup> Water Environment Federation, *supra* note 21. **STORAGE NAME**: h1405d.ISC

# Biosolids Use & Disposal from 2021 Biosolids Annual Program Reports



In Florida, as of 2019, DEP estimated that wastewater treatment facilities produced approximately 340,000 dry tons of biosolids each year, with two-thirds being beneficially used for land application or distributed and marketed as fertilizer and one-third being landfilled. Land application involves the spreading of biosolids on the soil surface or incorporating or injecting biosolids into the soil and it is conducted at "various sites including agricultural lands, forests, mine reclamation sites, and other disturbed lands, parks, and golf courses." and other disturbed lands, parks, and golf courses."

#### Regulation of Biosolids

In addition to being treated, biosolids are subject to regulatory requirements designed to protect human health and the environment.<sup>28</sup> Biosolids are classified at the federal level as "Class A" or "Class B" biosolids in terms of pathogen reduction requirements.<sup>29</sup> In Florida, there is a special "Class AA" designation for biosolids treated to the highest quality standard, which are distributed and marketed as fertilizer.<sup>30</sup>

<sup>&</sup>lt;sup>25</sup> EPA, *supra* note 20. A monofill is "a landfill that accepts only wastewater treatment plant biosolids." EPA, *Fact Sheet: Use of Landfilling for Biosolids Management* (last updated Feb. 13, 2023), <a href="https://www.epa.gov/biosolids/fact-sheet-use-landfilling-biosolids-management">https://www.epa.gov/biosolids/fact-sheet-use-landfilling-biosolids-management</a> (last visited Apr. 10, 2023).

 $<sup>\</sup>frac{26}{5} \ DEP, \ Biosolids in \ Florida, \text{at 5 (2019)}, \ \underline{\text{https://www.florida-stormwater.org/assets/MemberServices/Conference/AC19/02%20-} \\ \frac{20}{5} \ 20 \ Frick\%20 \ To m.pdf\#: \sim :te \ xt=Biosolids\%20 \ and\%20 \ Management\%20 \ in\%20 \ Florida\%20 \ Estimated\%20 \ Total\%20 \ Production, two-thirds\%20 \ are \%20 \ beneficially\%20 \ and\%20 \ and\%20 \ onethird\%20 \ are \%20 \ and\%20 \ and\%20 \ and\%20 \ are \%20 \ and\%20 \ are \%20 \ and\%20 \ and\%20 \ are \%20 \ and\%20 \ are \%20 \ and\%20 \ and\%20 \ are \%20 \ and\%20 \ are \%20 \ and\%20 \ are \%20 \ and\%20 \ and\%20 \ are \%20 \ and\%20 \ and\%20 \ are \%20 \ and\%20 \ are \%20 \ and\%20 \ and\%20 \ are \%20 \ are \%20$ 

<sup>&</sup>lt;sup>27</sup> EPA, *Land Application of Biosolids* (last updated Mar. 10, 2023), <a href="https://www.epa.gov/biosolids/land-application-biosolids">https://www.epa.gov/biosolids/land-application-biosolids</a> (last visited Apr. 10, 2023).

<sup>&</sup>lt;sup>28</sup> DEP, *supra* note 15.

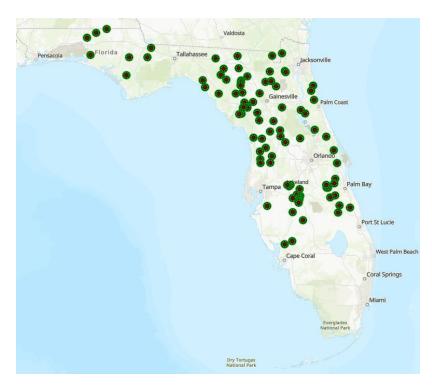
<sup>&</sup>lt;sup>29</sup> 40 C.F.R. Part 503; see also EPA, supra note 27.

<sup>&</sup>lt;sup>30</sup> R. 62-640.200(11), F.A.C.; *see also* National Biosolids Data Project, *Florida Biosolids* (last updated 2018), <a href="https://www.biosolidsdata.org/florida">https://www.biosolidsdata.org/florida</a> (last visited Mar. 18, 2023).

Although all biosolids classes have been treated to substantially reduce pathogen indicators below levels typically found in manure, Class B biosolids have the least.<sup>31</sup> Treatment of biosolids must reduce pathogens, the attractiveness of the biosolid to rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents, and the amount of toxic metals in the biosolids.<sup>32</sup>

Biosolids may be "appli[ed] to land in farming and ranching operations, forest lands, and public areas such as parks, or in land reclamation projects such as restoration of mining properties."<sup>33</sup> Either Class A or Class B pathogen requirements and site restrictions must be met before biosolids may be land applied.<sup>34</sup> "Class A biosolids are essentially free of pathogens prior to application. . . . [and] Class B biosolids may have low levels of pathogens which rapidly die off when applied to soils, essentially becoming pathogen-free within a short period following application in accordance with" federal regulations.<sup>35</sup> Class AA biosolids may be distributed and marketed like other commercial fertilizers with few further restrictions and, like other commercial fertilizers, they are primarily regulated by the Florida Department of Agriculture & Consumer Services.<sup>36</sup>

The following map depicts the land application sites in Florida where Class B biosolids are permitted and allowed to be applied following the development of a site-specific nutrient management plan (NMP).<sup>37</sup>



At the time of land application, there must be a minimum unsaturated soil depth of two feet between the depth of biosolids placement and the water table level.<sup>38</sup> "Biosolids may not be applied on soils that have a seasonal high-water table less than [six] inches from the soil surface or within [six] inches of the intended depth of biosolids placement, unless a department-approved [NMP] and water quality

<sup>&</sup>lt;sup>31</sup> R. 62-640.200(10)-(12), F.A.C.; see also J. Hallas, C. Mackowiak, and A. Wilkie, *Florida Biosolids: Management and Land Application Rules* (Nov. 2019), University of Florida IFAS Extension.

<sup>&</sup>lt;sup>32</sup> R. 62-640.600, F.A.C.

<sup>&</sup>lt;sup>33</sup> DEP, *Domestic Wastewater Biosolids* (last updated Apr. 20, 2022), <a href="https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-biosolids">https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-biosolids</a> (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>34</sup> EPA, A Plain English Guide to the EPA Part 503 Biosolids Rule, p.30 (Sept. 1994), <a href="https://www.epa.gov/biosolids/plain-english-guide-epa-part-503-biosolids-rule">https://www.epa.gov/biosolids/plain-english-guide-epa-part-503-biosolids-rule</a> (last visited Mar. 19, 2023).

<sup>&</sup>lt;sup>35</sup> State of California, CalRecycle, https://calrecycle.ca.gov/Organics/Biosolids/ (last visited Mar. 23, 2023).

<sup>&</sup>lt;sup>36</sup> R. 62-640.850(2), F.A.C.; see also S. 576.181(1), F.S. and r. ch. 5E-1, F.A.C.

<sup>&</sup>lt;sup>37</sup> DEP, Wastewater Facility Regulation Map, <a href="https://www.arcgis.com/home/item.html?id=3a1f04a423784536b1ac94e361eaf206">https://www.arcgis.com/home/item.html?id=3a1f04a423784536b1ac94e361eaf206</a> (last visited Mar. 18, 2023).

<sup>&</sup>lt;sup>38</sup> S. 403.0855(3)(a), F.S. **STORAGE NAME**: h1405d.IS

monitoring plan provide reasonable assurances that the land application of biosolids at the site will not cause or contribute to a violation of the state's surface water quality standards or groundwater standards."<sup>39</sup>

DEP has promulgated rules to establish minimum requirements, including monitoring and reporting requirements, for the treatment, management, use, and disposal of biosolids.<sup>40</sup> In addition to wastewater treatment facilities, the rules are also applicable to appliers or distributors of biosolids or biosolids products, and to owners or operators of application sites which receive biosolids,<sup>41</sup> and include permit requirements for both treatment facilities and biosolids application sites.<sup>42</sup>

Each permit application for a biosolids land application site<sup>43</sup> must include a site-specific NMP.<sup>44</sup> There are many requirements for a NMP, including a description of how the NMP complies with any applicable basin management action plans (BMAPs) and with any applicable reasonable assurance plans (RAPs),<sup>45</sup> and the NMP must "[e]stablish specific rates of application of biosolids based on nitrogen and phosphorus as well as procedures to land apply biosolids and all other nutrient sources to each application zone<sup>46</sup>."<sup>47</sup>

A BMAP is a restoration plan developed for the watersheds and basins connected to impaired waterbodies that are included on DEP's verified list of impaired waterbodies (Verified List). <sup>48</sup> An impaired waterbody is one that does not meet applicable water quality standards, <sup>49</sup> and a BMAP addresses the pollutant causing the impairment. <sup>50</sup> Thirty-three BMAPs have been developed statewide. <sup>51</sup>

Impaired waterbodies with plans that provide reasonable assurance that they will attain water quality standards may avoid placement on DEP's Verified List.<sup>52</sup> RAPs are adopted by order of the Secretary of DEP,<sup>53</sup> and they "may obviate the need to use limited state resources to . . . implement BMAPs."<sup>54</sup> Five reasonable assurance plans have been adopted.<sup>55</sup>

Biosolids may only be applied to sites that are permitted by DEP and have a valid NMP.<sup>56</sup> Biosolids must be applied at rates established in accordance with the NMP and may be applied to a site only if all concentrations of minerals do not exceed established ceiling<sup>57</sup> and cumulative concentrations.<sup>58</sup> There are many other requirements for Class A and Class B application sites, such as setback distances and

<sup>&</sup>lt;sup>39</sup> *Id*.

<sup>&</sup>lt;sup>40</sup> Ch. 62-640, F.A.C.

<sup>&</sup>lt;sup>41</sup> R. 62-640.100(5)(b)-(c), F.A.C.

<sup>&</sup>lt;sup>42</sup> R. 62-640.300(1), F.A.C.

<sup>&</sup>lt;sup>43</sup> "Application site' means a property (such as a farm, a ranch or a mining property) where biosolids or septage are applied to land. Application sites are identified as either agricultural sites or reclamation sites." R. 62-640.200(3), F.A.C.

<sup>&</sup>lt;sup>44</sup> R. 62-640.500(a), F.A.C.

<sup>&</sup>lt;sup>45</sup> R. 62-640.500(5)(c), F.A.C.

<sup>&</sup>lt;sup>46</sup> "Application zone' means a parcel of land (e.g., a field) within an application site to which biosolids are applied." R. 62-640.200(4), F.A.C.

<sup>&</sup>lt;sup>47</sup> R. 62-640.500(5)(f), F.A.C.

<sup>&</sup>lt;sup>48</sup> S. 403.067(7)(a)1., F.S.; R. 62-303.100(1), F.A.C.

<sup>&</sup>lt;sup>49</sup> R. 62-303.200(7), F.A.C.

<sup>&</sup>lt;sup>50</sup> DEP, Division of Environmental Assessment and Restoration, *Guidance on Developing Restoration Plans as Alternatives to TMDLs – Assessment Category 4b and 4e Plans*, p. 2 (June 2015) <a href="https://floridadep.gov/sites/default/files/4b4ePlansGuidance.pdf">https://floridadep.gov/sites/default/files/4b4ePlansGuidance.pdf</a> (last visited Mar. 1, 2023).

<sup>&</sup>lt;sup>51</sup> Office of Economic & Demographic Research (EDR), Annual Assessment of Florida's Water Resources: Quality, p. 5 (2023), <a href="http://edr.state.fl.us/Content/natural-resources/2023">http://edr.state.fl.us/Content/natural-resources/2023</a> Annual Assessment Water Resources Chapter 4.pdf (last visited Mar. 1, 2023).

<sup>&</sup>lt;sup>52</sup> R. 62-303.600(2), F.A.C.

<sup>&</sup>lt;sup>53</sup> EDR, *supra* note 51, at 29.

<sup>&</sup>lt;sup>54</sup> *Id*. at 27.

<sup>&</sup>lt;sup>55</sup> *Id.* at 29.

<sup>&</sup>lt;sup>56</sup> R. 62-640.500, F.A.C.

<sup>&</sup>lt;sup>57</sup> R. 62-640.700(5), F.A.C.

<sup>&</sup>lt;sup>58</sup> R. 62-640.700(7), F.A.C. **STORAGE NAME**: h1405d.ISC

runoff prevention requirements.<sup>59</sup> Class B biosolids application sites must be posted with appropriate advisory signs<sup>60</sup> and the sites are subject to additional restrictions, including food crops harvesting restrictions and animal grazing restrictions.<sup>61</sup>

Once a site is permitted, it is subject to monitoring, record-keeping, reporting, and notification requirements. The requirements are site-specific and may be increased or reduced by DEP based on: "the quality or quantity of wastewater or biosolids treated; historical variations in biosolids characteristics; industrial wastewater or sludge contributions to the facility; the use, land application, or disposal of the biosolids; the water quality of surface and ground water and the hydrogeology of the area; wastewater or biosolids treatment processes; and the compliance history of the facility or application site." <sup>63</sup>

# Prohibitions on the Application of Biosolids

The application of biosolids is prohibited in certain areas. The Legislature banned the disposal of domestic wastewater biosolids within the Lake Okeechobee, <sup>64</sup> Caloosahatchee River, <sup>65</sup> and St. Lucie River <sup>66</sup> watersheds unless the applicant can affirmatively demonstrate that the nutrients in the biosolids will not add to nutrient loadings in the watershed. The prohibition against land application in these watersheds does not apply to Class AA biosolids that are distributed as fertilizer products. <sup>67</sup>

The land application of Class A and Class B biosolids is also prohibited within priority focus areas <sup>68</sup> in effect for Outstanding Florida Springs if the land application is not in accordance with an NMP that has been approved by DEP.<sup>69</sup> The NMP must "[e]stablish the rate at which all biosolids, soil amendments, and nutrient sources at the land application site can be applied to the land for crop production, while minimizing the amount of pollutants and nutrients discharged into groundwater or waters of the state."<sup>70</sup>

A municipality or county may regulate the land application of Class A or Class B biosolids if the regulation was adopted prior to November 1, 2019.<sup>71</sup> Such regulations are valid until repealed by the municipality or county.<sup>72</sup>

# Composting of Biosolids

Composting is used to stabilize wastewater solids and reduce pathogens, the attractiveness of the biosolid to rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents, and minimize odor.<sup>73</sup>

The United States Composting Council (Council) was established in 1990 by corporations and compost producers.<sup>74</sup> The mission of the Council is to "advance[] compost manufacturing, compost utilization, and organics recycling to benefit our members, society, and the environment."<sup>75</sup> In 2000 the Council

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<sup>59</sup> R. 62-640.700(8), (11), F.A.C.
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<sup>&</sup>lt;sup>60</sup> R. 62-640.700(6)(f), F.A.C.

<sup>&</sup>lt;sup>61</sup> R. 62-640.700(12)(d)-(h), F.A.C.

<sup>62</sup> R. 62-640.650, F.A.C.

<sup>&</sup>lt;sup>63</sup> *Id*.

<sup>&</sup>lt;sup>64</sup> S. 373.4595(3)(b)16., F.S.

<sup>&</sup>lt;sup>65</sup> S. 373.4595(4)(b)5., F.S.

<sup>&</sup>lt;sup>66</sup> S. 373.4595(4)(d)5., F.S.

<sup>&</sup>lt;sup>67</sup> Id.; ss. 373.4595(3)(b)16. and 373.4595(4)(b)5., F.S.; see also R. 62-640.850, F.A.C.

<sup>&</sup>lt;sup>68</sup> "'Priority focus area' means the area or areas of a basin where the Floridan Aquifer is generally most vulnerable to pollutant inputs where there is a known connectivity between groundwater pathways and an Outstanding Florida Spring, as determined by the department in consultation with the appropriate water management districts, and delineated in a basin management action plan." S. 373.802(5), F.S.

<sup>&</sup>lt;sup>69</sup> S. 373.811(4), F.S.

<sup>&</sup>lt;sup>70</sup> *Id*.

<sup>&</sup>lt;sup>71</sup> S. 403.0855(6), F.S.

<sup>72</sup> Id

<sup>&</sup>lt;sup>73</sup> EPA, Composting of Biosolids (last updated Nov. 4, 2022), <a href="https://www.epa.gov/biosolids/composting-biosolids">https://www.epa.gov/biosolids/composting-biosolids</a> (last visited Mar. 21, 2023).

<sup>&</sup>lt;sup>74</sup> US Composting Council (Council), *About Us*, <a href="https://www.compostingcouncil.org/page/AboutUs">https://www.compostingcouncil.org/page/AboutUs</a> (last visited Mar. 21, 2023). <sup>75</sup> *Id*.

created the Seal of Testing Assurance (STA) Program, and "[c]ompost manufacturers participating in the STA . . . [p]rogram are held to high standards for using quality labs, testing frequently, disclosing specific information about their product, and following regulations." The goal of the STA Program is to provide clarity, consistency, and confidence in the compost product being purchased.<sup>77</sup>

#### Effect of the Bill

### Section 1:

The bill establishes a biosolids grant program within DEP and provides that, subject to the appropriation of funds by the Legislature, DEP may provide grants to counties and municipalities to support projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids. The bill encourages applicants to form public-private partnerships with private utilities and firms.

### The bill requires DEP:

- To prioritize projects by considering each project's economic and market feasibility, as well as the environmental benefit that a project may provide.
- When evaluating a project's economic and market feasibility, to review a detailed cost-benefit
  analysis for the project which includes the project's overall economic impact and both current
  and future market potential, including current or prospective buyers or users of the project's
  Class AA biosolids.
- When evaluating the environmental benefit of a project, to review an analysis of how the project's Class AA biosolids are projected to minimize the migration of nutrients and other pollutants that degrade water quality.

The bill requires DEP to administer the grant program so that, of the funds made available each year for the program:

- At least 33 percent is reserved for projects that convert wastewater residuals into composted Class AA biosolids that meet the requirements of the United States Composting Council's Seal of Testing Assurance Program as being fully stabilized.
- At least 33 percent is reserved for projects that convert wastewater residuals into both Class AA biosolids and a solution of ammonia nitrogen.
- At least 10 percent is reserved for projects within an area designated as a rural area of opportunity (RAO)<sup>78</sup> (collectively, "Reserved Funds Projects").

The bill authorizes DEP, if it does not receive sufficient applications for Reserved Funds Projects, to reallocate the reserved funds to other prioritized projects.

The bill requires DEP to require that each project grant have a minimum of a 50 percent funding match from local, state, federal, or private funds. The bill authorizes DEP to waive, in whole or in part, the 50 percent match requirement for proposed projects within an area designated as a RAO.

# Section 2:

The bill prohibits DEP from authorizing land application site permits for Class B biosolids within the subwatershed of a waterbody or waterbody segment listed as impaired for either nitrogen or phosphorus pursuant to s. 403.067, F.S., or within an adjoining upstream subwatershed containing surface waters that flow to a waterbody listed as impaired for either nitrogen or phosphorus pursuant to s. 403.067, F.S., unless the applicant affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed. The bill requires the

https://www.compostingcouncil.org/general/custom.asp?page=CertifiedCompostSTA#:~:text=The% 20program% 20% E2% 80% 93% 2 Ocreated% 20in% 202000% 20% E2% 80% 93% 20is,need% 20to% 20get% 20the% 20ma ximu m% 20benefit% 20from% 20compost visited Mar. 21, 2023).

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<sup>&</sup>lt;sup>76</sup> Council, Using STA Certified Compost,

<sup>&</sup>lt;sup>77</sup> Council, *Using STA Certified Compost, Manufacturer Requirements*, <a href="https://www.compostingcouncil.org/page/STARequirements">https://www.compostingcouncil.org/page/STARequirements</a> (last visited Mar. 21, 2023).

<sup>&</sup>lt;sup>78</sup> A RAO is a community or region of communities which are uniquely distressed and are priority assignments for the Rural Economic Development Initiative. The Governor may designate no more than three RAOs. Ss. 288.0656(2)(d) and (7)(a), F.S. **STORAGE NAME**: h1405d.ISC

demonstration to be based on achieving a net balance between nutrient imports relative to exports on the permitted land application site and requires exports to include only nutrients removed from the subwatershed through products generated on the permitted land application site.

The bill requires DEP, beginning November 1, 2023, and each November 1 thereafter, to publish updated maps designating the subwatersheds of water bodies protected under s. 403.0855(7), F.S.

The bill requires new or renewed Class B biosolid land application site permits issued after November 1, 2023, to meet the requirements of s. 403.0855, F.S., by July 1, 2024. The bill requires all permits for biosolid land application sites to meet the requirements of s. 403.0855, F.S., by July 1, 2025.

#### B. SECTION DIRECTORY:

- Section 1. Creates s. 403.0674, F.S., related to a biosolids grant program.
- Section 2. Amends s. 403.0855, F.S., related to biosolids management.
- Section 3. Provides an effective date of July 1, 2023.

## II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

## A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

## 2. Expenditures:

Subject to the appropriation, the bill establishes a biosolids grant program within DEP to provide grants to counties and municipalities to support projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids.

## B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

# 2. Expenditures:

The bill may have an indeterminate fiscal impact on local governments due to more restrictive requirements as it relates to the application of Class B biosolids. The effect of the bill may result in local governments having to upgrade their systems or relocate their land applications to meet these requirements. Such impacts may be offset by revenues generated by prospective buyers or users of biosolids, to the extent that such a market exists.

## C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

## D. FISCAL COMMENTS:

None.

#### III. COMMENTS

#### A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to require counties or municipalities to spend funds or take action requiring the expenditure of funds; reduce the authority that counties or municipalities have to raise revenues in the aggregate; or reduce the percentage of state tax shared with counties or municipalities.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

### IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On March 22, 2023, the Water Quality, Supply & Treatment Subcommittee considered one amendment, which was adopted, and reported the bill favorably as a committee substitute. The amendment:

- Removes the authorization for DEP to provide grants from the wastewater grant program for projects that convert wastewater residuals to Class A or Class AA biosolids;
- Establishes a biosolids grant program within DEP and authorizes DEP to provide grants to counties and municipalities to support projects to construct, upgrade, expand, or retrofit domestic facilities that convert wastewater residuals to Class AA biosolids:
- Requires DEP to administer the grant program so that, of the funds made available each year for the program, certain percentages of those funds are reserved for particular types of projects; and
- Removes the requirement for DEP to reserve at least 15 percent of the funding made available each year for the Clean Water State Revolving Fund program for projects that convert wastewater residuals to Class A or Class AA biosolids during the year it is reserved.

The staff analysis has been updated to reflect the committee substitute.